

Completed Pollution Prevention Project Case Study

United States Department of Energy
Office of Environmental Management
Fact Sheet

Emergency Lighting Redesign at the CMR Facility Los Alamos National Laboratory

Original Problem

As part of the original plan for the upgrade of the CMR facility, new emergency lighting fixtures were going to be installed so that people could leave the building safely even if the power failed. Approximately 3000 cubic feet of contaminated fixtures and personal protective equipment would have been disposed of as hazardous waste.

The Project Solution

The project management team discovered that the vast majority of existing lighting fixtures at the CMR facility were in fine shape and did not need to be replaced. The team modified the original upgrade plans and decided to install an uninterruptible power supply in the building and connect some of the existing lights to this power supply for emergency lighting purposes.

Value of Improvement

Since the lighting fixtures did not have to be replaced, the project was completed sooner than originally expected. Approximately two months of significant interruption of ongoing mission activities were avoided. Installing the uninterruptible power supply instead of new lighting fixtures saved approximately \$200,000 in wages, purchase costs, and disposal costs. About 3000 cubic feet worth of hazardous waste was avoided by this project modification. In addition, replacing all of the lighting fixtures would have increased the risk of employee exposure to respiratory and electrical hazards.

Lifecycle Waste Reduction

Lifecycle Waste Reduction	3000 ft ³
Commencement Date	2001
Project Useful Life (Years)	One time



DOE Monetary Benefits

Total Project Cost	NA
Lifecycle Savings	~\$200,000
Return on Investment	NA

Benefits At-A-Glance

- The project was completed more quickly because installing the uninterruptible power supply was a much faster activity than replacing all of the existing lighting fixtures would have been.
- No waste was generated since the existing lighting fixtures were not replaced as originally planned.
- The project team had a lower chance of being exposed to airborne particles or electrical hazards during the upgrade.

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Summary Data	
Priority Area:	Waste Minimization Projects
Project Type:	Process Redesign
Total Project Cost:	NA
Lifecycle Savings:	~\$200,000
Implementing Group:	CMR Facility
Benefiting Group:	CMR Facility
Useful Life Years:	One time
Return on Investment:	NA
Lifecycle Waste Reduction:	3000 cubic feet of protective equipment and fixtures
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